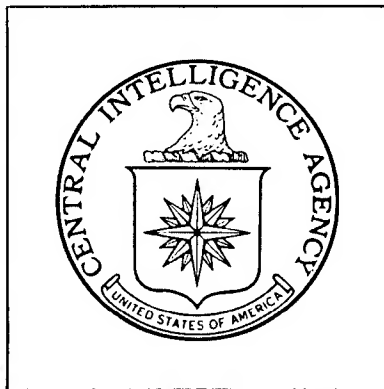


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DIRECTORATE OF  
INTELLIGENCE

Industrial Facilities  
(Non-Military)

*Basic Imagery Interpretation Report*

Wu-wei Copper Smelter

China

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CENTRAL INTELLIGENCE AGENCY  
Directorate of Intelligence  
Imagery Analysis Service

INSTALLATION OR ACTIVITY NAME			COUNTRY	
Wu-wei Copper Smelter			CH	
UTM COORDINATES	GEOGRAPHIC COORDINATES		COMIREX NO.	NIETB NO.
48STT520640	38-29-10N 102-09-10E		None	None
MAP REFERENCE				
AMS. Series 1505. Sheet NJ48-5. 1st edition. 1967. Scale 1:250,000				
(SECRET)				
LATEST IMAGERY USED			NEGATION DATE (If required)	
			NA	

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## ABSTRACT

Wu-wei Copper Smelter includes ore concentration and smelting facilities. This plant produces copper anodes which are then sent to a refinery, probably the nearby Wu-wei Copper Smelter and Refinery, for further processing.

When the plant was first observed on overhead coverage in June 1962, only the smelter and five other buildings were visible due to the obliquity of the photography. The plant appeared complete when it was next seen, in August 1964. No changes have been observed since that time. The smelter has been seen operating intermittently on coverage from June 1965 to June 1971.

This report includes an annotated photograph of the facility and a discussion of the operational status.

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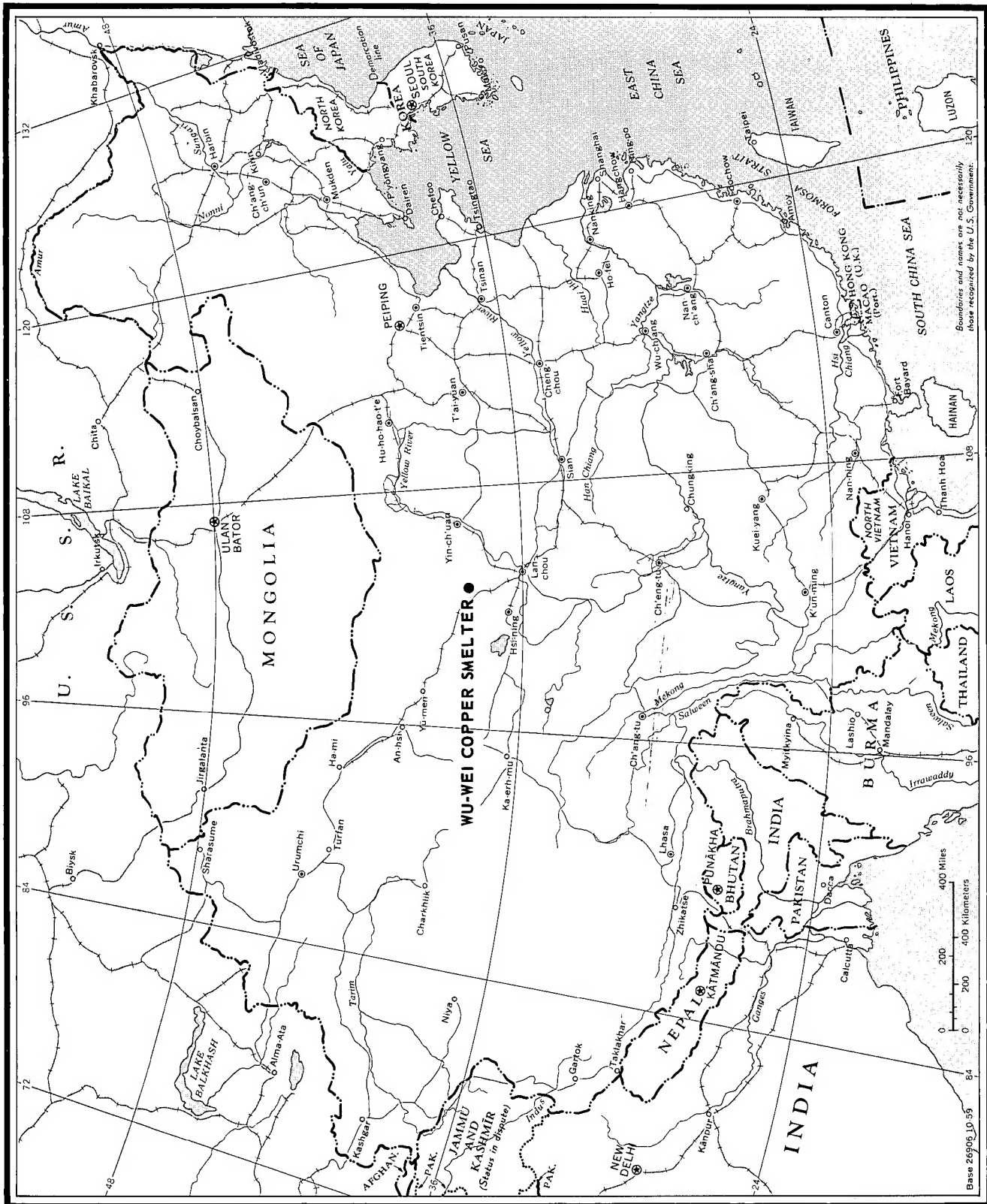


FIGURE 1. LOCATION MAP.

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## INTRODUCTION

Wu-wei Copper Smelter is located approximately 39 nautical miles (nm) northwest of Wu-wei, and 170 nm northwest of Lan-chou. Other industrial facilities in the area include Wu-wei Copper Smelter and Refinery, 1.5 nm east of this plant, and two power plants in the town of Ho-hsi-pao, about 11.5 nm southwest of the plant (see Figure 1).

Ore is obtained from an open pit mine approximately 0.5 nm west of the plant.

## BASIC DESCRIPTION

Physical Features

The plant occupies an irregularly shaped area approximately 3,700 by 3,300 feet which contains about 189 acres (see Figure 2). It is at the base of foothills of the Tung-ta Mountains. There are no apparent physical security measures. The plant is bordered on one side by the mountains and elsewhere by other buildings, leaving no room for expansion.

The plant is served by road and by a rail spur from the main rail line between Lan-chou and Urumchi.

Operational Functions

The major plant facilities are an ore concentrator and a smelter. Ore is brought from the mine by rail, crushed and ground. The ground ore is concentrated to remove impurities, which may include other metals such as lead, zinc, nickel, gold, or silver. The concentrated ore is sintered, roasted, and smelted in a blast furnace to produce copper matte. The copper matte is converted by an induced-air process into blister copper, which is then cast into anodes. Anodes from this smelter are probably refined at the nearby Wu-wei Copper Smelter and Refinery.

There are several unidentified buildings within the plant area which have no apparent relation to the operations of the smelter.

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**TOP SECRET RUFF**Construction and Operational Status

When the plant was first seen on overhead photography in June 1962, only the smelter and five other buildings were visible due to the obliquity of the photography. The plant appeared complete when it was next observed in August 1964. No changes have been observed since that time.

On ten of the 17 photographic coverages from June 1962 to June 1971, smoke from the smelter stack indicated that the plant was operating. The plant did not appear to be operating in June 1962, August 1964, December 1965, August 1966, September 1967, January 1968, and October 1969.

Key to Annotations  
(Figure 2)

<u>Item</u>	<u>Description</u>	<u>Dimensions (ft)</u>
1	Crushing and grinding building	
2	Concentration building	425 x 155
3	Concentrate storage building	140 x 90
4	Sintering building	
5	Roasting building	
6	Blast furnace	

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Map

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Document

NPIC. Non-Ferrous Metals Complex, China, August 1969  
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Requirement

COMIREX N09  
Support Number 422953

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